

Progress for the week 8-4 to 8-10

1-Lambda phage ordered and arrived for silica optimization

2-Two SU-8, 3" and 4" wafers held pending on the heat plate waiting for the mask aligner to be fixed.

If not until Tuesday these shall be exposed at photonics 816.

3-SU-8 PDMS holder was given to the machine shop specifically to Mr.Mourato for a prototype. The prototype cost has not been determined but however pricing for the rest in case of approval shall not exceed 45\$ maximum.

4-Sustained production of ships for Sonali estimated now at 10 chips every Monday ready. Average of 3 hours a day assigned for this purpose only.

5-design of the 2cm as well as 4 cm should be ready on Wed of next week.

6-Designed fixture for Jaephil's chip

7-training on Solidworks using vid tutorials since us and the machinists have failed to convert .dwg files to solidworks or MasterCam format which is what's used for the machine interface. Soon I'll be able to model everything on solidworks.

8-Still thinking of a way for the ventilated chip to work. !

Plans for the week 8-11 to 8-17

Throughout the week:

1-continue making chips for Sonali

2-make chips for myself for the silica optimization

3-test the reproducibility of Sylvanus's nanogap by making two complete chips. (requested by him)

Monday: Spec the concentration of the lambda phage DNA received and aliquoting into smaller volumes

*follow up on the SU-8 suction for PDMS mold with the machine shop

Tuesday: Prepare bacterial sample of E.Coli to be viewed using the SEM. There is a special protocol to enhance the picture of bacteria.

*I have perfect cross sections of Silica in Zeonex. View these with Sylvanus using SEM

*Bond the nanogap chips for Sylvanus.

Wednesday: Exposure of the SU-8 molds whether in ERB or Photonics.

Discussing the fixture design of the 2 and 4 cm channels with the machinists and getting a price estimate

Thursday: routine work of making chips Prepare channels for Silica optimization and bond channels for Sonali.

Fill channels with monolith to be ready for

A problem has been recurring with the chips cracking after UV exposure with the grafting solution in the channels. Irritating as it sounds this problem has resulted in fabulous cross section of the monolith which we are going to view under the SEM. Details of this problem are in an error report sent in a separate email previous to this.

friday

Friday: prepare Series of dilutions of the lambda phage DNA and carry out the experiment first stage.

Spec the retrieved solution and get results

Saturday: Prepare channels for Sonali

